

Claims:

1. A device for the treatment of aneurysmal tissue, comprising:
at least one reservoir locatable adjacent to an aneurysmal site; and
at least one carrier provided therewith, where the carrier is capable of
delivering at least one therapeutic agent.
2. The device of claim 1, wherein the carrier is contained within the reservoir.
3. The device of claim 1, wherein carrier is a time release carrier.
4. The device of claim 3, wherein the carrier and at least one therapeutic
agent are formulated as a sheet, pellets, a sponge, a slab, a gel, capsules,
microspheres, nanospheres, liquids or combinations thereof.
5. The treatment device of claim 1, wherein the reservoir, when implanted,
provides the at least one agent into the aneurysmal site.
6. The device of claim 1, wherein the reservoir or carrier comprises a
synthetic biodegradable polymer, a synthetic biostable polymer, a natural polymer,
an inorganic material or combinations thereof.
7. The device of claim 6, wherein the biodegradable polymer is an aliphatic
polyester, a poly(ortho ester), a poly(ester amide), a poly(ester urethane), a

poly(ester anhydride), a poly(ester carbonate), a polyphosphazene, a polyarylate, a poly(ether ester), and/or combinations thereof.

8. The device of claim 7, wherein the aliphatic polyester is poly(lactic acid), poly(glycolic acid), poly(lactic acid-co-glycolic acid), or poly(ϵ -caprolactone) or co-polymers thereof.

9. The device of claim 6, wherein the biostable polymer is a polyolefin, a polyurethane, a fluorinated polyolefin, a chlorinated polyolefin, a polyamide, an acrylate polymer, an acrylamide polymer, a vinyl polymer, a polyacetal, a polycarbonate, a polyether, an aromatic polyester, a poly(ether ether ketone), a polysulfone, a silicone rubber, a thermoset, or a poly(ester imide) and/or combinations thereof.

10. The device of claim 9, wherein the polymer is poly(butyl methacrylate), poly(methyl methacrylate), poly(ethylene-co-vinylacetate), or poly(ethylene-co-methylacetate) or co-polymers thereof.

11. The device of claim 6, wherein the natural polymer is albumin, collagen, gelatin, hyaluronic acid, starch, alginate, pectin, cellulose and cellulose derivatives, casein, dextran, polysaccharides, or fibrinogen and/or combinations thereof.

12. The device of claim 1, wherein the carrier comprises a synthetic biodegradable polymer, and the reservoir comprises a synthetic biostable polymer, a natural polymer, an inorganic material or combinations thereof.
13. The device of claim 1, wherein the reservoir comprises a polymeric material.
14. The device of claim 13, wherein the polymeric material is a polyolefin, a polyurethane, a silicone, a polyester, or a fluorinated polyolefin.
15. The device of claim 1, wherein the at least one therapeutic agent is a matrix metalloproteinase (MMP) inhibitor, an antibiotic, a cyclooxygenase-2 (COX-2) inhibitor, an angiotensin-converting enzyme (ACE) inhibitor, a glucocorticoid, a beta blocker, a nitric acid synthase (NOS) inhibitor, an antioxidant, an antibody, or a non-steroidal anti-inflammatory drug (NSAID).
16. The device of claim 1, wherein at least one therapeutic comprises a combination of therapeutic agents.
17. The device of claim 1, wherein the reservoir is located adjacent a stent graft between the stent graft and the aneurysmal site.
18. The device of claim 1, wherein the device is located inside the aneurysmal sac.

19. The device of claim 1, wherein the device is located outside the aneurysmal sac.
20. A method of treating an aneurysm, comprising implanting the device of claim 1 in an aneurysmal site.
21. A reservoir for the treatment of aneurysmal tissue, comprising at least one carrier compound and at least one therapeutic agent.
22. The device of claim 21, wherein carrier is a time release carrier.
23. The device of claim 21, wherein the reservoir and at least one therapeutic agent are formulated as a sheet, a mass, a slab, a gel, capsules, a sponge or combinations thereof.
24. The treatment device of claim 21, wherein the reservoir, when implanted, provides the at least one therapeutic agent to the aneurysmal site.
25. The device of claim 21, wherein the reservoir comprises a synthetic biodegradable polymer, a synthetic biostable polymer, a natural polymer, an inorganic material or combinations thereof.
26. The device of claim 25, wherein the biodegradable polymer is an aliphatic polyester, a poly(ortho ester), a poly(ester amide), a poly(ester urethane), a

poly(ester anhydride), a poly(ester carbonate), a polyphosphazene, a polyarylate, a poly(ether ester), and/or combinations thereof.

27. The device of claim 26, wherein the aliphatic polyester is poly(lactic acid), poly(glycolic acid), poly(lactic acid-co-glycolic acid), or poly(ϵ -caprolactone) or co-polymers thereof.

28. The device of claim 25, wherein the biostable polymer is a polyolefin, a polyurethane, a fluorinated polyolefin, a chlorinated polyolefin, a polyamide, an acrylate polymer, an acrylamide polymer, a vinyl polymer, a polyacetal, a polycarbonate, a polyether, an aromatic polyester, a poly(ether ether ketone), a polysulfone, a silicone rubber, a thermoset, or a poly(ester imide) and/or combinations thereof.

29. The device of claim 28, wherein the polymer is poly(butyl methacrylate), poly(methyl methacrylate), poly(ethylene-co-vinylacetate), or poly(ethylene-co-methylacetate) or co-polymers thereof.

30. The device of claim 25, wherein the natural polymer is albumin, collagen, gelatin, hyaluronic acid, starch, alginate, pectin, cellulose and cellulose derivatives, casein, dextran, polysaccharides, or fibrinogen and/or combinations thereof.

31. The device of claim 21, wherein the at least one therapeutic agent is a matrix metalloproteinase (MMP) inhibitor, an antibiotic, a cyclooxygenase-2 (COX-

2) inhibitor, an angiotensin-converting enzyme (ACE) inhibitor, a glucocorticoid, a beta blocker, a nitric acid synthase (NOS) inhibitor, an antioxidant, an antibody, or a non-steroidal anti-inflammatory drug (NSAID).

32. The device of claim 21, wherein the reservoir comprises a combination of therapeutic agents.

33. The device of claim 21, wherein the reservoir is located adjacent a stent graft between the stent graft and the aneurysmal site.

34. The device of claim 21, wherein the reservoir is located inside the aneurysmal sac.

35. The device of claim 21, wherein the reservoir is located outside the aneurysmal sac.

36. A method of treating an aneurysm, comprising implanting the device of claim 21 in an aneurysmal site.

37. A device for the treatment of aneurysmal tissue, comprising:
at least one reservoir locatable remote from an aneurysmal site;
at least one carrier provided therewith, where the carrier is capable of delivering at least one therapeutic agent; and
a delivery means.

38. The device of claim 37, wherein carrier is a time release carrier.
39. The device of claim 37, wherein the carrier and at least one therapeutic agent are formulated as a sheet, pellets, a sponge, a slab, a gel, capsules, microspheres, nanospheres, liquids or combinations thereof.
40. The treatment device of claim 37, wherein the delivery means delivers the at least one therapeutic agent into the aneurysmal site.
41. The device of claim 37, wherein the reservoir or carrier comprises a synthetic biodegradable polymer, a synthetic biostable polymer, a natural polymer, an inorganic material or combinations thereof.
42. The device of claim 41, wherein the biodegradable polymer is an aliphatic polyester, a poly(ortho ester), a poly(ester amide), a poly(ester urethane), a poly(ester anhydride), a poly(ester carbonate), a polyphosphazene, a polyarylate, a poly(ether ester), and/or combinations thereof.
43. The device of claim 42, wherein the aliphatic polyester is poly(lactic acid), poly(glycolic acid), poly(lactic acid-co-glycolic acid), or poly(ϵ -caprolactone) or co-polymers thereof.
44. The device of claim 43, wherein the biostable polymer is a polyolefin, a polyurethane, a fluorinated polyolefin, a chlorinated polyolefin, a polyamide, an acrylate polymer, an acrylamide polymer, a vinyl polymer, a polyacetal, a

polycarbonate, a polyether, an aromatic polyester, a poly(ether ether ketone), a polysulfone, a silicone rubber, a thermoset, or a poly(ester imide) and/or combinations thereof.

45. The device of claim 44, wherein the polymer is poly(butyl methacrylate), poly(methyl methacrylate), poly(ethylene-co-vinylacetate), or poly(ethylene-co-methylacetate) or co-polymers thereof.

46. The device of claim 41, wherein the natural polymer is albumin, collagen, gelatin, hyaluronic acid, starch, alginate, pectin, cellulose and cellulose derivatives, casein, dextran, polysaccharides, or fibrinogen and/or combinations thereof.

47. The device of claim 37, wherein the carrier comprises a synthetic biodegradable polymer, and the reservoir comprises a synthetic biostable polymer, a natural polymer, an inorganic material or combinations thereof.

48. The device of claim 37, wherein the at least one therapeutic agent is a matrix metalloproteinase (MMP) inhibitor, an antibiotic, a cyclooxygenase-2 (COX-2) inhibitor, an angiotensin-converting enzyme (ACE) inhibitor, a glucocorticoid, a beta blocker, a nitric acid synthase (NOS) inhibitor, an antioxidant, an antibody, or a non-steroidal anti-inflammatory drug (NSAID).

49. The device of claim 37, wherein the time release carrier comprises a combination of therapeutic agents.

50. The device of claim 37, wherein the delivery means comprises a pump and tubing.

51. The device of claim 50, wherein the pump is a mechanical, electrical, or osmotic pump.

52. The device of claim 50, wherein a first end of the tubing is in communication with the pump and a second end of the tubing is located adjacent a stent graft between the stent graft and the aneurysmal site.

53. A method of treating an aneurysm, comprising using the device of claim 37 to deliver the at least one therapeutic agent to an aneurysmal site.

54. The device of claim 37, wherein the therapeutic agent is delivered to the outer wall of the aneurysmal site.